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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/149,001 | 09/08/1998 | HIROTAKE NOZAKI | 101516 | 4328 |

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EXAMINER

NGUYEN, LUONG TRUNG

| ART UNIT | PAPER NUMBER |
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2612

DATE MAILED: 03/25/2004

24

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/149,001

Applicant(s)

NOZAKI ET AL.

Examiner

LUONG T NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Request for Consideration, filed 1/13/2004, with respect to the rejection(s) of claim(s) 1-5, 11-15 under Nakano et al. (US 5,043,816) in view of Okino et al. (US 5,920,349) further in view of Fukuda (US 5,479,211) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nakano et al. (US 5,043,816) and Okino et al. (US 5,920,349) further in view of Suzuki et al. (US 6,415,057).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 11-13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (US 5,043,816) in view of Okino et al. (US 5,920,349) further in view of Suzuki et al. (US 6,415,057).

Regarding claim 1, Nakano et al. disclose an electronic camera comprising image pick-up means (CCD 13, lens 11, figure 10); temporary memory means (memory 22, figure 10, column 14, lines 55-63); still image selection means for selecting the image data with the highest evaluation of the shooting evaluation means among the image data stored in the temporary

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memory means (judging circuit 20, figure 10, column 14, lines 20-35); image saving means (floppy disk 28, figure 10, column 14, lines 53-63).

Nakano et al. fails to specifically disclose image compression means for compressing the image data stored in said temporary memory means and generating encoded image data.

However, Okino et al. disclose an image pickup device, which includes compression circuit 7 to compress image data (generating encoded image data) before recording in recording medium 10 (figure 1, column 3, lines 20-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Nakano et al. by the teaching of Okino et al. in order to compress image data before storing in a memory. This makes the memory can store more image data.

Nakano et al. and Okino et al. fail to specifically disclose shooting evaluation means for evaluating a good or bad state of the image data imaged by said image pick-up means based on a data amount of the encoded image data generated by said image compressing means. However, Nakano et al. disclose judging circuit 20 as a shooting evaluation means for evaluating a good or bad shooting state of the image data imaged by the image pick-up means (figure 10, column 12, lines 45-55, column 13, line 60 - column 14, line 53). And Suzuki et al. discloses an apparatus for selective control of degree of picture compression, in which the status of the data at the output buffer 18 is evaluated by the combination of picture information evaluation circuit 50 and quantization step controller 39 and based on the amount of encoded data generated by VLC circuit 17 (figure 6, column 9, line 3 – column 10, line 56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

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device in Nakano et al. and Okino et al. by the teaching of Suzuki et al. in order to avoid the deterioration of the picture quality (column 10, lines 24-25).

Regarding claim 2, Nakano et al. disclose wherein the temporary memory means begins temporary storage of the image data after the release operation of the electronic camera (column 14, lines 53-59).

Regarding claim 3, Nakano et al. disclose wherein said temporary means sequentially takes in new image data from said image pick-up means and sequentially updates the image data in the temporary memory means during a waiting state of a release operation (plurality of images photographed in a shutter standby condition are temporarily stored, see abstract); and after the release operation of the electronic camera, stops the data update at the time of temporarily storing image data spanning from before to after the release operation of the electronic camera (column 14, lines 53-63).

Regarding claim 4, Nakano et al. disclose wherein said temporary memory means and said image saving means use a same memory mechanism (figure 10, both memory 22 and floppy disk 28 are used to store image data).

Regarding claim 5, Nakano et al., Okino et al. and Suzuki et al. fail to specifically disclose wherein said temporary means differentially compressed plural frames of image data which are continuously imaged by said image pick-up means. However, Okino et al. disclose an

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image pickup device, which includes compression circuit 7 to compress image data before recording in recording medium 10 (figure 1, column 3, lines 20-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Nakano et al. by the teaching of Okino et al. in order to compress image data before storing in a memory. This makes the memory can store more image data.

Regarding claim 11, Nakano et al. disclose wherein, as at least one of the good or bad evaluation of said shooting state, said shooting evaluation means detects a blurring amount and/or a misfocus amount of said image pick-up means (column 14, lines 1-52).

Regarding claim 12, Nakano et al., Okino et al. and Suzuki et al. fail to specifically disclose wherein, as at least one of the good or bad evaluation of said shooting state, said shooting evaluation means determines the spatial frequency component of said image data. However, Okino et al. disclose an image pickup device which identifies a block rich in high-frequency component to detect the focus of a phototaking optical system (column 1, line 60 - column 2, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Nakano et al. by the teaching of Okino et al. in order to provide an image pickup device capable of automatic focusing function and still having a small power consumption (column 1, lines 59-61).

Regarding claim 13, Suzuki et al. discloses wherein said shooting evaluation means determines a high-area component amount of the spatial frequency, based upon a compressed

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amount of said image data (the status of the data at the output buffer 18 is evaluated by the combination of picture information evaluation circuit 50 and quantization step controller 39 and based on the amount of encoded data generated by VLC circuit 17, figure 6, column 9, line 3 – column 10, line 56).

Regarding claim 15, all the limitations are contained in claim 1. Therefore, see Examiner's comments regarding claim 1.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (US 5,043,816) and Okino et al. (US 5,920,349) in view of Suzuki et al. (US 6,415,057) further in view of Uenaka (US 5,359,382).

Regarding claim 14, Nakano et al., Okino et al. and Suzuki et al. fail to specifically disclose said shooting means determines a release time lag. However, Uenaka discloses an automatic focusing device in which a release time lag is calculated (column 8, lines 10-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Nakano et al., Okino et al. and Suzuki et al. by the teaching of Uenaka in order to obtain more accurate focus prediction (column 8, lines 40-44).

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T NGUYEN whose telephone number is (703) 308-9297. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN

3/20/2004



**LUONG T. NGUYEN
PATENT EXAMINER**